AMERICAN MUSEUM NOVITATES

Number 668 | Published by THE AMERICAN MUSEUM OF NATURAL HISTORY New York City | Oct. 23, 1933

59.88, 6 (85)

STUDIES OF PERUVIAN BIRDS. XI

THE GENERA *TARABA* AND *SAKESPHORUS*

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I am greatly indebted to Dr. Herbert Friedmann of the U. S. National Museum, Washington, D. C., for the loan of the type of "*Thamnophilus hollandi*" used in the following study.

Names of colors when capitalized indicate direct comparison with Ridgway's 'Color Standards and Color Nomenclature.'

Taraba major transandeanus (Sclater)

Thamnophilus transandeanus SCLATER, 1855, P. Z. S. London, XXIII, p. 18—Guayaquil, s. w. Ecuador; cotypes in British Mus.

A single male from Milagros is perfectly comparable to specimens from the west coast of Ecuador. The only other Peruvian locality is Tumbez, recorded by Taczanowski.

A male from Guainche, Ecuador, has the under tail-coverts largely grayish with dusky bands and whitish tips rather comparable to *granadensis;* one of the coverts is still left from the rufous juvenal dress which appears also on the wings. Another male from Zaruma is similar but with more juvenal feathers, and a third, from Manaví, shows a slight tendency in the same direction. In the rest of the Ecuadorian series, these coverts are black with white tips but without gray. Owing to the separation of this region from the range of *granadensis* it is debatable whether the variation is toward *granadensis* or whether it is not toward *melanurus* which sometimes has the normally white under tail-coverts inclined toward grayish with dusky barring.

Further account of *transandeanus* is given below in the general discussion under *T. m. melanurus.*

Taraba major melanurus (Sclater)

Thamnophilus melanurus SCLATER, 1855 (April), Edinb. N. Philos. Journ. (N.S.) I, p. 233—part; River Ucayali, e. Perú; ♂ imm.; British Mus.

Thamnophilus melanurus debilis BERLEPSCH AND STOLZMANN, 1896, P. Z. S. London, p. 379—La Merced, Perú; cotypes in Berlepsch Collection, Frankfort, and Warsaw Museum.

A series of birds from numerous localities in Perú shows the existence of much individual variation with a tendency toward various

extralimital forms at different parts of the boundary. In extreme northwestern Perú, the west-Ecuadorian form, *T. m. transandeanus*, reaches Peruvian territory, but in the rest of the country, in the humid tropical valleys, only a single form can be satisfactorily distinguished. This form, *melanurus*, reaches out into eastern Ecuador and western Brazil but finds the center of its distribution near the Río Ucayali which is also its type locality and where the resident form has characters of the best average nature.

In southeastern Perú, the females are somewhat paler above than Ucayali birds, with a noticeable brownish tinge and with a slight suggestion of pale tips on the outer rectrices. They show a distinct approach toward typical *major* of the Paraguay-Argentina-Bolivia region. The males are inseparable from *melanurus*, without any unusual development of white on the tail, not as much as is shown by some Ucayali examples. Since another degree of intermediacy is shown by the inhabitants of northern Bolivia (discussed on a later page), while southeastern Bolivia harbors true *major*, it is best to leave the southeast-Peruvian series with *melanurus* and to point out their variational tendency.

I have no females from the Chanchamayo Valley whence "*debilis*" was described, but three males from Junín show no differences from skins from other parts of Perú. The bill is no smaller and the tarsi no longer, while the white tips of the upper wing-coverts and the outer rectrices are white in other skins as well as in the Junín examples.

West of the Ucayali in northern Perú (except on the Pacific coast), across the middle Marañón to the Chinchipe Valley, and thence eastward across Perú and Ecuador to beyond the Napo, there is a tendency toward a greater development or extension of blackish on the facial region of both sexes. This is evidenced in the male sex by the spreading of the black from the malar region to include a line of variable width on the upper border of the feathering on the base of the mandible, just below the gape. In the female sex, the lores, a short extension over the eye, and a subocular space including the anterior portion of the auriculars may be conspicuously blackish instead of rufous with more whitish lores. Not all of the northern examples show these characters and, while none of the Ucayali males have any black below the gape, some of the Ucayali females have the facial region as dark as the more lightly marked females from the other localities. A male and a female from "Napo" are inseparable from Ucayali skins and are less like others from San José and the mouth of the Curaray, in the Napo region. In spite of the occurrence of some well-marked variational tendencies in the northern part of Perú,

therefore, the racial characteristics do not appear to be fixed enough to warrant the application of a new name.

As a matter of fact, the black on the face of both sexes is a mark of approach toward *granadensis* of eastern Colombia where it is of more regular occurrence. The Ucayali birds, on the other hand, are nearer to *borbae*. So much individual variation is shown in all these forms that there is no sharp line of division anywhere, though certain subspecies are relatively distinct in certain respects. Thus the white-tipped black under tail-coverts of *transandeanus* are lightened to gray with dusky bands and a white tip in *granadensis*, while in *melanurus* these feathers, which are pure white on all exposed portions, frequently have dusky or grayish median areas and may resemble those of *granadensis* except for broader white tips.

Peruvian localities from which *melanurus* (including "*debilis*") has been recorded, except those given in the subjoined list of specimens, are Pebas, Samiría, Chayavitas, Nauta, Santa Cruz, Moyobamba, Pangoa, Bellavista, La Merced, Yahuarmayo, San Gaban, and Chaquimayo.

In the examination of Bolivian material to determine the affinities of southeast-Peruvian specimens, much variation was found in the direction of contiguous forms, as is the case in *melanurus*. It is doubtful if the variations deserve nomenclatorial recognition.

Birds from northern Argentina are certainly inseparable from Paraguayan skins of typical *major*, though Laubmann, in describing his "*kriegi*" from southeastern Bolivia, referred his series from Argentina to it. I have no material from southeastern Bolivia, but the description of *kriegi* and the characters shown by the Argentinian specimens exactly fit the Paraguayan birds at hand. The error of separation appears to have arisen through taking birds from Goyaz, Brazil, as typical *major* whereas they evidently approach *stagurus*, at least in some respects.

A series from Matto Grosso, Brazil, shows no marked divergence from typical *major* in either sex. Five males from Todos Santos and Reyes, Bolivia, including the type of "*virgultorum*" are likewise inseparable from males of *major*, but a female from the "Falls of the Madeira," near the junction of the Beni and the Mamoré, is decidedly darker and more rufous in dorsal coloration than any of the Matto Grosso-Argentina-Paraguayan series and is purer white beneath, without the buffy tinge of *major*. In spite of this, it falls far short of the depth of coloration in female *borbae* as exemplified by numerous specimens from both sides of the Madeira near its mouth and as far up as Humaythá.

Another female from Porto Velho, Brazil, not far above Humaythá, is even closer to typical *major* and not at all like *borbae*. Evidently the range of *borbae* does not extend southward beyond the mouth of the Gy-Paraná though in the region of northern Bolivia a definite intergradation takes place with *major*.

The female from the Falls of the Madeira is not unlike the females from southeastern Perú in many respects and it might be thought that they could be joined in a separable form to be called "*virgultorum* Cherrie," but the southeast Peruvian males are decidedly closer to *melanurus* and the Bolivian males are inseparable from *major*. Consequently such a form would be extremely unstable in its characters and it is better left in synonymy.

Two females from Teffé, Brazil, are of somewhat doubtful affinity. There is little difference, at best, between *melanurus* and *borbae*, and between the females of the two there is only a slight distinction in the tone of the upper parts, *melanurus* having a faintly brownish hue observable only on direct comparison with *borbae*. The Teffé females seem to agree better with *melanurus*. This is probably the correct assignment since males of *borbae* from the left bank of the Madeira are a little less positively marked than those from the right bank, showing that even greater distinction may be expected west of the Purús.

A female from Rio Grande, Minas Geraes, is not typical either of *major* or *stagurus*. There is no buffy tinge on the under parts as in *major*, and even the flanks, which are somewhat buffy in *stagurus*, are more grayish than buff. There is some blackish shading about the eye and traces of fine dusky shaft-lines on the breast, but the upper parts are dark as in *stagurus*, to which I refer the specimen provisionally.

The tendency to develop an extension of facial black, observed in north-Peruvian birds and just noted in the Goyaz examples of *stagurus*, occurs also in other subspecies. Some of the females of *semifasciatus* from near the foot of Mt. Duida also show this character as a variable feature, not present in all the skins from that region. Possibly here it is a step in the direction of *duidae* where it is constant and marked, but it may also show the affinity of *granadensis* which is not far away to the westward. Hellmayr (1924) gives the range of *semifasciatus* as extending up the Orinoco to Munduapo, but it goes beyond to the Cassiquiare and down the Negro to its mouth, at least on the left bank (San Gabriel, Santa Isabel, and Manaos).

I have already noted that *granadensis* shows the regular occurrence of black on the sides of the head in the females and black below the gape

in the males. Chapman (Amer. Mus. Novit., No. 380, p. 17, 1929) has noted that "females of *transandeana* from throughout the greater part of its range approach *duidae* in their blackish loral, ocular, and aural regions," but the fact is that this condition does not exist in typical Ecuadorian specimens though it holds for Colombian skins, where it is accompanied by a distinctly darker hue of rufous on the upper surface. The males, furthermore, are rather uniform in respect to the presence of a black line on the upper part of the mandibular feathering below the gape, which again is not the case in Ecuadorian specimens. The Ecuadorian series is consistent in these respects (with which the male from Milagros, Perú, agrees), and the Colombian (Pacific coast and Cauca Valley) series is equally consistent except near the Ecuadorian border at Barbacoas where individual variation forms the transition, with both extremes in evidence.

In Central America the characters of the west-Colombian birds are continued and skins from various localities agree in the details mentioned, though other differences occur. Griscom (Bull. Amer. Mus. Nat. Hist., LXIV, p. 232, 1932) has reinstated *melanocrissus* as a valid form extending down the Caribbean coast from Mexico to northeastern Panamá though stopped on the Pacific side by the occurrence of "*transandeanus*" in western Costa Rica and with many intermediate examples occurring in southern Central America.

The recognition of *melanocrissus* appears to be justifiable in spite of the broad area of intergradation. The same type of intergradation and variation exists in other subspecies of the group as detailed elsewhere in this paper, and the extremes, which are quite distinct, occur in widely separated regions. I have seen no Mexican material, but in three males from Guatemala there is only a negligible suggestion of whitish at the tips of the under tail-coverts, much less than in any Colombian birds. In Nicaraguan males, the amount of white on these coverts tends to increase. A male from "Savala" is like the Guatemalan skins; one from Los Sabalos has a moderate amount of white, but one from somewhere near the borders of the state of Matagalpa has rather broad white tips. Geographically, all these birds should be *melanocrissus*. The type of Lawrence's "*hollandi*" came from Greytown, on the Caribbean coast of southern Nicaragua, and it is without white on the under tail-coverts, being easily recognizable as *melanocrissus*.

Some of the Costa Rican birds also are intermediate but those from the eastern side of the divide have an average of less white on the under tail-coverts than those from the west, though a male from Limón has the most of any of the series examined.

In Panamá, one male from Remedios, on the Pacific side, has no appreciable white on these coverts but the feathers in question belong to the juvenal plumage and may not be typical. Males from the neighborhood of Bocas del Toro have an average of less white on these coverts than those from all the rest of the country, which coincides with Griscom's analysis of the situation.

The females of *melanocrissus* require more study than the material at hand will permit. The two Guatemalan females have a minimum of blackish about the eye. Most Nicaraguan birds have more than the Guatemalan skins, but one from Vizagua has none, and the Costa Rican have the same as the average Nicaraguan. Females from Panamá agree with those from Costa Rica except one bird from Lion Hill which is like the Guatemalan examples in lacking decided black in this region. Honduran and Mexican specimens should be examined to determine the relative constancy of this variation.

With "*hollandi*" relegated to the synonymy of *melanocrissus*, the west-Colombian birds are left without a name. The form may be known as follows.

Taraba major obscurus, new subspecies

TYPE from Alto Bonito, Antioquía, Colombia; altitude 1500 feet. No. 133,376, American Museum of Natural History. Adult female collected February 23, 1915, by L. E. Miller and Howarth Boyle. Original number 11,429.

DIAGNOSIS.—Similar to *T. m. transandeanus* but females darker rufous above and on wings and tail; lores, supraocular and subocular spaces, and anterior part of auriculars distinctly blackish, not uniform with top of head nor with lores whitish. Males differ from *transandeanus* only by having the black of the malar region extended below the gape to the upper part of the feathering at the base of the mandibles.

RANGE.—Central and western Colombia in the Cauca Valley and on the whole western coast, extending north into Panamá (except in the northern section of the Caribbean coast-region) and, on the Pacific slopes, at least as far north as western Costa Rica.

DESCRIPTION OF TYPE.—Back Chestnut, with top of head inclined toward Bay and with the tips of the feathers slightly darker; lores blackish with the same obscurity extended over the eye and below it to the anterior portion of the auriculars, reaching also to a narrow line on the mandibular feathering below the gape; remainder of auriculars and sides of head and neck like the back; a large, concealed patch of silky white on the mantle. Most of under parts white with outermost border of the sides light Chestnut; flanks somewhat grayish, becoming dark brown posteriorly; thighs Amber Brown with white tips; under tail-coverts light Auburn with very narrow whitish tips. Wings Fuscous, with outer margins near Carob Brown; inner margins narrowly and not sharply whitish; upper wing-coverts the color of the back with faint suggestions of pale tips; tail Carob Brown. Bill black (in dried skin);

feet slaty brown. Wing, 97 mm.; tail, 71; exposed culmen, 25; culmen from base, 31; tarsus, 36.5.

REMARKS.—Males have the top of head and back black with a concealed patch of white on the mantle; upper tail-coverts black, usually with narrow white tips on some of the feathers. Lores and sides of head and neck black including also a line of variable width on the feathering at the base of the mandibles below the gape. Chin, throat, breast, and belly white; sides of breast with the outermost feathers black or with their outer webs largely black; flanks grayish or white; thighs with feathers black at base, white at tip; under tail-coverts black with narrow white tips. Tail black (rarely with faint white tips on outermost rectrices); wings black, with inner margins of remiges white or whitish except at tips; upper wing-coverts black with white tips usually absent from primary-coverts; alula with white tips or sometimes white outer margins; under wing-coverts white. Bill black (in dried skins); feet slaty. Wings, 89–97 mm.; tail, 65–75; exposed culmen, 25–30.5; culmen from base, 31–35; tarsus, 34–36.5.

Two young males from Baudo and La Vieja, Choco, Colombia, have the chest-feathers tipped with blackish and the lesser upper wing-coverts black without white tips, but an equally young male from Río Barraton, Cauca Valley, disagrees in both particulars. An adult male from Savala, Matagalpa, Nicaragua, has even less white on the wings and only a trace of white at the tips of the under tail-coverts, being presumably near *melanocrissus;* though a male from the Río San Juan and one from near the state of Matagalpa, Nicaragua, both have broad white tips on these feathers; there are only faint traces of dusky tips on the breast of the Savala bird. A young male of *melanocrissus* from Guatemala has still less white on the upper wing-coverts and under tail-coverts but has the dusky tips on the breast-feathers a little stronger than the Savala skin. The black tips on the breast are somewhat developed in a young male of *transandeanus* from Naranjo, Ecuador, and the white tips of the under tail-coverts are much reduced, but the upper wing-coverts are broadly tipped with white (or cinnamon-buff on the juvenal feathers).

I have already called attention (Amer. Mus. Novitates, No. 584. p. 11, 1932) to the fact that the young bird described by Wied as the nestling of "*Myioturdus tetema*" (=*Formicarius colma ruficeps*) is, in reality, a young *Taraba major* subspecies. The subspecific determination is impossible in the absence of a definite locality for the specimen, but it is *major*, *semifasciatus*, or *stagurus* judging by the pattern observable on such of the rectrices as have begun to appear.

Before closing this account, a word may be said about the generic name *Taraba*. As originally founded, some seventeen names (accepted for sixteen species) were included by Lesson, only two of which, *magnus* and *albiventer*, are among those referable to forms now included in the genus. Gray, in 1855, designated *stagurus* as the type and Sclater, in 1890, designated *major* as the type. Neither of these names was given by Lesson although *magnus* is an unquestionable synonym of *major* and *albiventer* is a nearly certain synonym of *stagurus*. Presumably neither Gray's nor Sclater's designations are valid. I judge that Sherborn has reached the same conclusion since in the 'Index Animalium,' Sect. 2, Vol. T–Z, p. 6832, 1931, he has formally designated "*Tamnophilus magnus* Wied" [= *Taraba major major*] as type of the genus.

Specimens Examined

T. m. major.—Paraguay: Trinidad, 1 ♂; "Front of Concepcion," 2 ♂, 1 ♀; Makthlawaika mission, 2 ♂, 1 ♀. Argentina: Embarcación, 8 ♂, 9 ♀; Perico, Jujuy, 6 ♂; Suncho Corral, 1 ♂, 2 ♀; Avia Terai, 1 ♂, 1 ♀; General Pinedo, 1 ♂, 1 ♀; Rosario de Lerma, 1 ♀; Sarmiento, 1 ♀; Concepción de Tucumán, 2 ♂[1], 1 ♀[1]; Trancas, 1 ♂[1]. Brazil: Chapada, Matto Grosso, 12 ♂, 4 ♀; Urucum de Corumbá, 5 ♂, 3 ♂[1], 4 ♀; Belvedere de Urucum, 1 ♂; Tapirapoan, 1 ♂, Abrilongo, 1 ♀; Cuyabá, 1 ♀; Descalvados, 1 ♀; 1 ♀[1]; Fazenda San Juan, Cuyabá, 1 ♂; Rio San Lorenzo, 1 ♂, 1 ♀; Piraputanga, 1 ♂[1]; Porto Velho, Rio Madeira, 1 ♀. Bolivia: Todos Santos, 3 ♂ (incl. type of "*virgultorum*"); Reyes, 2 ♂; Falls of the Madeira, 1 ♀[2].

T. m. stagurus.—Brazil: Bahia (various localities), 14 ♂, 7 ♀, 1 ♂[1]; Espirito Santo, 1 ♂, 2 ♀; Piauhy, 6 ♂, 7 ♀, 1 ♂[1]; Ceará, 1 ♂, 8 ♂[1], 8 ♀[1]; Maranhão, 11 ♂, 2 ♀, 7 ♂[1], 5 ♀[1]; São Paulo, Avanhandava, 1 ♂; Goyaz, Philadelphia, 1 ♂; Minas Geraes, Rio Grande, 1 ♀[2].

T. m. semifasciatus.—Brazil: Rio Tocantins, Baião, 3 ♂; Rio Xingú, Porto de Moz, 2 ♂, 2 ♀; Rio Tapajoz, Tauarý, 2 ♂, 1 ♀; Piquiatuba, 1 ♂, 2 ♀; Caxiricatuba, 2 ♂; Santarem, 1 ♀; Igarapé Amorin, 2 ♂, 2 ♀; Rio Amazonas, Villa Bella Imperatríz, 2 ♂, 2 ♀; Rio Jamundá, Faro, 4 ♂, 3 ♀; Arumanduba, 1 ♂; Obidos, 1 ♀; Rio Negro, Manaos, 2 ♂; Santa Isabel, 1 ♂; San Gabriel, 1 ♂; Serra da Lua, 2 ♂[1]. Venezuela: (Río Cassiquiare and foot of Mt. Duida), 8 ♂, 6 ♀; Munduapo, 1 ♂, 1 ♀; La Unión, 2 ♂, 2 ♀; El Pilar, 1 ♂; Carenage, 1 ♀; Quebrada Seca, 1 ♀; Cristóbal, Colón, 2 ♂, 1 ♀; San Antonio, 1 ♂; Cuchivano, 1 ♂; La Latal, 1 ♀; British Guiana: 1 ♂, 3 ♂[1]; Dutch Guiana, 1 ♂[1], 1 ♂, 1 ♀.

T. m. duidae.—Venezuela: (Mt. Duida, 4700–6700′), 5 ♂, 4 ♀ (incl. type).

T. m. borbae.—Brazil: Rio Madeira (right bank), Borba, 1 ♂, 1 ♀; Igarapé Auará, 4 ♂, 4 ♀; (left bank), Rosarinho, 4 ♂, 7 ♀; Santo Antonio de Guajará, 1 ♂, 2 ♀; Humaythá, 1 ♂, 1 ♀.

T. m. melanurus.—Brazil: Teffé, 2 ♀. Perú: Astillero, 1 ♂, 1 ♀; Candamo, 3 ♂, 2 ♀; Tulumayo, Junín, 3 ♂; mouth of Río Urubamba, 1 ♂; Puerto Bermúdez,

[1]Specimens in Field Museum of Natural History, Chicago.
[2]Not typical.

Río Pichis, 1 ♂[1]; Santa Rosa, Río Ucayali, 3 ♂, 2 ♀; Lagarto, 3 ♂, 7 ♀; Sarayacu, 1 ♂, 4 ♀; Río Amazonas, Orosa, 2 ♂, 1 ♀; Rio Chinchao, Vista Alegre, 1 ♂[1], 2 ♀[1]; Río Seco, west of Moyobamba, 3 ♂, 5 ♀; Jaen, 1 ♀; Río Chinchipe, Perico, 3 ♂, 3 ♀; Anayacu, 1 ♂. ECUADOR: Zamora, 3 ♂; below San José, 1 ♂; mouth of Río Curaray, 1 ♀; "Napo," 1 ♂, 1 ♀.

T. m. transandeanus.—PERÚ: Milagros, 1 ♂. ECUADOR: Bucay, 1 ♂; Chone, 1 ♂; Manaví, 1 ♂; Esmeraldas, 1 ♂, 1 ♀; Río de Oro, 1 ♀; Zaruma, 1 ♂; Naranjo, 1 ♂, 3 ♀; Guainche, 1 ♂; Santa Rosa, 1 ♂, 1 ♀; Alamor, 1 ♀; Mindo, 1 ♂.

T. m. obscurus.—COLOMBIA: Barbacoas, 8 ♂, 3 ♀; San José, 1 ♂, 1 ♀; Baudo, 1 ♂; La Vieja, 1 ♂; Río Frio, 1 ♂, 3 ♀; Río Barraton, 3 ♂; Río Lima, 1 ♀; Palmira, 1 ♂; Alto Bonito, 3 ♂, 3 ♀ (incl. type). PANAMÁ: (Lion Hill), 3 ♂, 1 ♀; Chiriqui, Boqueron, 1 ♂; Cape Garachiné, 1 ♂, 1 ♀; El Real, Río Tuyra, 5 ♂, 1 ♀; Boca de Cupe, Río Tuyra, 1 ♂; Cituro, 1 ♀; Chepigana, 1 ♀. COSTA RICA: Pozo del Río Grande, 2 ♂, 1 ♀; Boruca, 1 ♀; Puerto Jiminez, 1 ♂, 2 ♀.

T. m. granadensis.—COLOMBIA: Villavicencio, 2 ♂; Honda, 1 ♂; Buena Vista, 1 ♂; Malena, 1 ♀. VENEZUELA: El Limón, 1 ♂.

T. m. melanocrissus.—GUATEMALA: Finca Chama, 2 ♂, 2 ♀; (no locality), 1 ♀. NICARAGUA: Los Sabalos, 1 ♂; Savala, 1 ♂, 1 ♀; Matagalpa, 1 ♀; Vizagua, 1 ♀; "state of Matagalpa or borders," 1 ♂; Greytown, 1 ♂[2] (type of "*Thamnophilus hollandi*"). COSTA RICA: Limón, 1 ♂; Guapiles, 1 ♀; Guacimo, 1 ♂, 1 ♀; Atalanta, 1 ♂, 2 ♀; Hacienda La Iberia, 1 ♀. PANAMÁ: Cocoplum, 4 ♂, 1 ♀; Almirante, 3 ♂, 3 ♀.

Sakesphorus canadensis loretoyacuensis (Bartlett)

Thamnophilus loretoyacuensis BARTLETT, 1882, P. Z. S. London, p. 373—Loretoyacu, Río Marañón, n. e. Perú; ♂ ♂, ♀; cotypes in British Mus.

A single Peruvian skin of this bird is at hand,—one of the specimens collected by Bartlett on the "Upper Ucayali," possibly near Cashiboya. For comparison I have a pair from Teffé, Brazil, five males and three females from the Rio Negro, and a female and a young male from the lower Rio Branco, all of which seem to represent the same form. There is a little variation in the color of the mantle in the males which varies from nearly all black with some indistinct, dark gray margins to dark brown with blackish shaft-stripes, both extremes coming from Muirapinima, a locality on the Rio Negro about halfway between Manaos and the mouth of the Rio Branco, though on the right bank.

The females are very like those of typical *trinitatis* except that the back is darker brown or rufous brown.

Records of *loretoyacuensis* from Perú are from the Upper Ucayali, Chamicuros, and Loretoyacu, the last-named locality in the territory ceded by Perú to Colombia in 1926.

[1]Specimens in Field Museum of Natural History, Chicago.
[2]Specimen in U. S. National Museum, Washington, D. C.

The farthest point up the Negro from which I have specimens is Yavanarí, also on the right bank, a short distance above Santa Isabel (left bank), whence Pelzeln recorded the bird (as *Thamnophilus atricapillus*).

Six examples from the foot of Mt. Duida are noticeably different from the series of *loretoyacuensis* and even more distinct from most of the Venezuelan specimens available for comparison though there are certain interesting connections with the northern series which have appeared after careful study. In any case, the Duida birds represent an extreme type of coloration which is best named and described before any further discussion is given. This new form may, therefore, be characterized as follows.

Sakesphorus canadensis fumosus, new subspecies

TYPE from Lalaja, Río Orinoco, Venezuela; altitude 325 feet. No. 237,356, American Museum of Natural History. Adult male collected February 26, 1929, by the Olalla brothers.

DIAGNOSIS.—Similar to *S. c. loretoyacuensis* of extreme eastern Perú and northwestern Brazil, but noticeably darker on the under surface. Males without the customary white stripe separating the black of the median under parts from the gray of the sides and flanks, this white being reduced to a few white spots or streaks; belly broadly black; thighs entirely black or with some narrow white tips; under tail-coverts predominantly black to the base with relatively narrow white tips; white marginal spot on outer rectrices reduced in size; a large black spot on the metacarpal edge of the under wing-coverts. Females more deeply ochreous on the under parts than those of *loretoyacuensis* and with somewhat broader blackish centers to the breast-feathers; black portions of auriculars and malar feathers more extensive, making the sides of the head darker.

RANGE.—Uppermost stretches of the Orinoco and the Cassiquiare near the foot of Mt. Duida, Venezuela.

DESCRIPTION OF TYPE.—Whole head black with a long occipital crest; hind neck and sides of neck with a nearly obsolete whitish line separating the black nape from the back; mantle with uppermost portion dark Cinnamon Brown with an ill-defined blackish shaft-line, the black increasing posteriad to the lower mantle where some of the feathers are almost completely blackish with no more than a brownish tinge on their lateral margins; rump sooty olive; upper tail-coverts black with narrow white tips. Under parts with black of head continued broadly down the middle of the belly to the anal region; sides of breast and flanks dark gray, faintly tinged with brownish; some of both the gray and the black feathers along the line of their meeting have rather inconspicuous whitish streaks or marginal spots largely concealed; under tail coverts medially black with bases sooty, very little paler, and tips white; thighs entirely black. Tail black with white tips on the feathers, broadest on the outermost, almost obsolete on the middle pair; outer margins of the outer pair with a small, rounded, white spot not reaching the shaft (and reaching the margin only on the left one of the pair); all the rectrices with a very narrow pale, grayish white marginal

line, not reaching the tips of the feathers; median pair with a similar line, somewhat broader and white, on their inner margins. Wings externally black; primaries with very narrow whitish outer marginal lines in their middle portions, not reaching bases or tips; secondaries without these marks; tertials with rather broader white margins; upper wing-coverts with white tips, largest on greater series where they extend a little basad along the outer margin, but reduced to dots on the lesser series; longest alula feather with white outer margin; primary-coverts all black; outer scapulars like the greater-coverts; inner scapulars like the upper mantle; inner margins of remiges white except at tips; under wing-coverts largely white but with some dusky tips and with a large patch at the metacarpal margin entirely black. Bill black (in dried skin); feet slaty. Wing, 75 mm.; tail, 62; exposed culmen, 19; culmen from base, 23; tarsus, 26.

REMARKS.—Two males from the Río Cassiquiare are not quite as pronounced as the type and have the irregular whitish marks on the sides of the breast and belly slightly larger, but they are still very different from any of the males of *loretoyacuensis* at hand.

Females have the top of the head Burnt Sienna to dark Sanford's Brown, crested; forehead slightly buffy with dusky bases and fine dusky tips, not conspicuous; back Argus Brown x Auburn; rump paler and duller; upper tail-coverts black with white tips. Lores buffy with dusky tips; a narrow superciliary line more deeply colored than the lores but lighter than the crown, with dusky bases inclined to be exposed; auriculars black with whitish shaft-lines or buffy whitish median area across the webs; malar feathering blackish at bases and tips and ochraceous buff across the middle. Chin and throat Ochraceous-Buff with rather broad dusky shaft-stripes on the throat; breast and sides very deep Ochraceous-Buff with broad blackish shaft-stripes, becoming obsolete on the sides; flanks rather duller; belly light Ochraceous-Buff; under tail-coverts deeply colored like the sides but with indistinct dusky cross-bars. Tail about as in the male (type) but the white spots on the outer webs of outer rectrices quite obsolete in one example and larger than in the type in another skin. Wings with primaries and secondaries margined with brown a little duller than the color of the back; tertials margined with ochraceous buff; upper wing-coverts marked as in the male but with buff instead of white; under wing-coverts buffy instead of white and with the black patch on the metacarpal edge somewhat concealed by the ochraceous tips of the feathers; inner margins of remiges slightly buffy. Thighs blackish at base, brown at tip. Maxilla dull brownish black (in dried skins), mandible browner; feet slaty. Wings, 71.25–73 mm.; tail, 57–60; exposed culmen, 17–19; culmen from base, 23–24.5; tarsus, 25.5–26.

A young male is much like the females but is sootier on the wings and has the top of the head with many of the feathers black except at their tips.

Between *fumosus* and *loretoyacuensis* I have not established a direct connection though the differences are such as to leave no doubt of the relationship. It is to the northward of Duida that a multiplicity of variations has developed. In order to understand these to the best advantage, it may be well to start at the mouth of the Orinoco and work up the stream.

I am not able to adopt unreservedly the arrangement proposed by Hellmayr (Field Mus. Nat. Hist. Publ., Zool. Ser., XIII, pt. 3, p. 53, 1924) which assigns all of the Venezuelan birds (except *pulchellus* of the Lake Maracaibo region) to *trinitatis;* yet, with fewer skins than the series examined by Hellmayr, I would hesitate to make a counter proposal were it not for certain new material at hand which helps to explain some of the puzzling factors in Hellmayr's arrangement.

With the establishment of typical *canadensis* in French and Dutch Guiana, the birds from Trinidad are recognizable under the name *trinitatis.* I have only two males from British Guiana, one of which, labeled "Demerara," is not unlike Trinidad males while the other, collected by Alexander and possibly from the eastern portion of the country, is much like true *canadensis.* The difference between the males is small and, without females from various parts of British Guiana, it is impossible to say whether or not both forms occur in this country.

In the Orinoco Delta region and in the former state of Bermúdez (now Anzoategui and Monagas), the birds are very like the Trinidad examples.

Farther up the Orinoco, at Ciudad Bolívar, Caicara, and the Río San Feliz, there is a prevailing tendency toward lighter coloration than is shown in the delta region. The males are brownish on the back, rather than grayish, but the tone is light, and the lores are decidedly whitish. The under tail-coverts are largely white, sometimes grayish subterminally but without a strongly blackish area in that position such as occurs in *canadensis* and *trinitatis.* The sides and flanks are light gray or even whitish, in reduced contrast to the white area bordering the median black stripe. The females also are pale brown on the back, and are light rufous on the crown, pale ochraceous below, with only moderately heavy streaking on the breast, and with the belly distinctly (though restrictedly) white in the middle. The same style of coloration, possibly a trifle warmer, is exhibited by birds from the Rio Surumú, Brazil, an affluent of the Rio Cotinga. The region of the Surumú is largely savanna country, I am informed by Messrs. Tate and Carter, who visited the locality, and savanna occurs at places on the top of the

Pacaraima Range and at the headwaters of the Río Caroní in Venezuela and it may extend, at least brokenly, down to the middle stretches of the Orinoco. Consequently it seems entirely possible that a light-colored race may exist in these savannas. Since the Caicara bird has been named *intermedius* by Cherrie, that name would be available for such a pale subspecies, if it can be satisfactorily maintained.

Birds from the state of Falcón are neither typical *trinitatis* nor the Caicara form but probably are nearer the latter though they are slightly darker. The under tail-coverts are without blackish subterminal areas and the lores of the males are rather extensively whitish. Possibly these birds should be considered as intermediate between *trinitatis* and *pulchellus* which latter form inhabits the nearby state of Lara, but, even if so, the similarity to *intermedius* may necessitate their reference to that subspecies. An additional character noted in the two males from the state of Falcón, but not observed in skins from other regions nor in Falcón females, is a small whitish area on the inner webs of the tail-feathers at their extreme base. Its significance is not clear. In any case, material must be examined from the region between Caicara and the state of Falcón to determine the possible continuity of range. Since the region is one of savannas, direct connection is not unlikely. Nevertheless, Hellmayr and Seilern (Arch. Naturg., LXXVIII, A (5), p. 119, 1912) found three males from San Esteban, Carabobo, to be more grayish, less rufous, above than others from British Guiana, Trinidad, and the Rio Branco, Brazil, being like skins from the Caura region and San Fernando de Apure!

On the Río Caura, a different type of coloration is encountered which is not that of Caicara and Ciudad Bolívar although the Caura empties into the Orinoco between these two places. Judging by the darker hues, the Caura birds are inhabitants more of forests than savannas and, from available accounts, the Caura is marked by this type of habitat. Some relationship to the forest-inhabiting *fumosus* is, therefore, to be expected.

Four males from as many localities (Río Mato, Suapure, Maripa, and La Unión) all have the white stripes bordering the median black area of the under parts virtually obsolete, being dull and grayish and not distinguishable as sharply-defined white; the lower belly is quite sooty, not white. The metacarpal border of the under wing-coverts is broadly black in the Río Mato male, with white tips in the Maripa skin, intermediate in the other two; the under tail-coverts have blackish bases and relatively narrow white tips; the male from La Unión has the lores

quite black, though the three other males have much white in this region. All these tendencies are in the direction of *fumosus*. The back is rather plain, without the heavy streaks of *fumosus* but of a darker tone than in *intermedius*. An additional character of doubtful significance is the decided reduction of the white spot on the lateral margins of the outer pair of rectrices. Instead of the customary broad patch reaching from the shaft to the margin, there is only a narrow marginal streak, rarely supplemented by a small oval spot in the middle of the web. A young male has the patch of exceptionally large size, connecting on the left rectrix with the white at the tip of the feather. In the Caura females the patch is of the regular size or but slightly reduced, and, in addition, the general color of both upper and under parts is as near to that of female *intermedius* as to that of *fumosus*, being intermediate between the two, as in the males. The general impression left by the Caura birds of both sexes is that of intermediates between *intermedius* and *fumosus*, not definitely referable to either.

In the neighborhood of the upper Orinoco, above Caicara, from Maipures to the falls of the Atures at Ayacucho, another definite change of color and pattern is found which bears little relation to the Caura series. The males from this region are even darker and more rufous brown on the back than the Caura males with the added features of rather prominent dusky streaks and an evident, though very small, concealed patch of white on the mantle. The white patch on the outer margins of the outer rectrices is not reduced in size but the lores are noticeably whitish. However, the under parts have not lost any of the broad white areas but rather have this white more decidedly in evidence than usual and the lower belly is white, showing no approach toward *fumosus* in these respects. I have no females from this part of the Orinoco, but a young male from the "Upper Orinoco" (judging by the collector's dates, not far from Maipures) is very like the young male from the Caura (Maripa) and, like it, has unusually extensive white on the outer margins of the outer rectrices, but is a little duller on the mantle. [Curiously enough, a young male of *intermedius* from the Rio Surumú, Brazil, and one from Ciudad Bolívar, Venezuela, also have the white spots of tip and outer margin of the outer rectrices continuous, with a small subterminal spot of dusky on the outer web, and a young female of *trinitatis* from Las Barrancas, Río Orinoco, has the same continuity without any dusky spot, as in *pulchellus*. An occasional skin of *pulchellus* shows a subterminal dusky spot and one male from La Cienga, Santa Marta, has the marginal patch connected with the terminal spot only

by a very narrow line on the outer margin of the outer web.] There is a tendency toward the development of white not only on the lores, as mentioned, but also on the forehead and superciliary region (as well as in the malar region where it appears frequently in other forms). The under tail-coverts are grayish as often as sooty and are quite broadly tipped with white which conceals the darker basal portions. The nearest affinity, in several of these respects, is *pulchellus* which occurs southeast of Lake Maracaibo though on the far side of the cordillera which separates the drainage of this lake from the rivers flowing to the upper Orinoco.

A single male from San Fernando de Atabapo, between Ayacucho and Mt. Duida, is more like *fumosus* than are the Ayacucho birds, but it still has the white on the sides of breast and belly and the streaked upper parts with more of brown than of black though the brown is grayer and less rufous than in Ayacucho males. Resemblance is apparent to some *loretoyacuensis*, which probably is due not to racial consanguinity but rather to a parallelism reached in the transition from *fumosus* to *pulchellus* or *intermedius*.

The only other skin which needs special mention is a male from Caracarahy, on the middle stretches of the Rio Branco, Brazil. This bird is plain brown on the mantle, of a darker hue than that of *intermedius* from the affluents of the upper Branco; in other respects it resembles *loretoyacuensis*. Since it comes from a locality in the region where the ranges of these birds must meet, it may be considered as intermediate between them.

In spite of the apparent regularity of the variations on the Caura and at Ayacucho and Maipures, and the impossibility of referring the respective series to one form or another, I hesitate to name new forms from these two regions. Obviously *fumosus*, as an inhabitant of forested areas, finds its way across the Pacaraima Mts. to the upper Caura which is forested, and extends down that stream in somewhat modified form, affected, probably, by some contact with the paler *intermedius* of the savannas which is more prevalent to the east and northward.

On the other hand, descending the Orinoco, an earlier contact occurs with savanna-covered regions, and a different modifying factor may exist in *pulchellus* some distance to the northwestward, resulting, in any event, in a somewhat different combination of characters as outlined above. Until more material is available from other localities I can do no more than suggest the lines of possible relationship.

Specimens Examined

S. c. canadensis.—French Guiana: Cayenne, 2 ♂, 2 ♀; Approuague, 1 ♀. Dutch Guiana: Paramaribo, 1 ♂, 1 ♀.

S. c. trinitatis.—Trinidad: Moruga, 2 ♂, 1 ♀; (no other locality), 1 ♂; San Fernando, 1 ♀; Monos Island, 1 ♂. British Guiana: Demerara, 1 ♂; (no other locality), 1 ♂. Venezuela: Sacupana, 1 ♂; Las Barrancas, 1 ♂, 1 ♀; Guanaguana, 1 ♂, 1 ♀.

S. c. intermedius.—Venezuela: Caicara, 3 ♂, 2 ♀ (incl. type); Ciudad Bolívar, 4 ♂, 1 ♀, 1 "♀" (= ♂); Tucacas, Est. Falcón, 2 ♂, 4 ♀. Brazil: Rio Surumú, Frechal, 3 ♂, 3 ♀.

S. c. pulchellus.—Venezuela: Baraquismeto, 2 ♂, 2 ♀; El Cuji, 2 ♂, 1 ♀; (no other locality), 1 ♂. Colombia: Santa Marta, 1 ♂; La Cienaga, 1 ♂, 1 ♀; Bonda, 3 ♂; Algodonal,Río Magdalena, 1 ♂; Banco, 1 ♂; La Playa, near Baranquilla, 3 ♂, 3 ♀; Turbaco, 1 ♂; Calamar, 1 ♀.

S. s. fumosus.—Venezuela: Lalaja, Río Orinoco, 1 ♂ (type); Río Cassiquiare, opposite El Merey, 3 ♂, 2 ♀.

S. c. fumosus x *intermedius.*—Venezuela: Río Mato, 1 ♂, 1 ♀; Suapure, 1 ♂; Maripa, 2 ♂, 2 ♀; La Unión, 1 ♂.

S. c. fumosus x *intermedius* x *pulchellus.*—Venezuela: Maipures, 1 ♂; "Upper Orinoco," 1 ♂; Ayacucho, 4 ♂; San Fernando de Atabapo, 1 ♂.

S. c. loretoyacuensis.—Perú: "Upper Ucayali," 1 ♂. Brazil: Teffé, 1 ♂, 1 ♀; Rio Negro, Muirapinima, 2 ♂, 2 ♀; Yavanarí, 1 ♂; Tabocal, 1 ♂; Carvoeira, 1 ♂; Rio Branco, Nova Vida, 1 ♂, 1 ♀.

S. c. loretoyacuensis x *intermedius.*—Brazil: Rio Branco, Caracarahy, 1 ♂.

Sakesphorus bernardi piurae (Chapman)

Thamnophilus bernardi piurae Chapman, 1923 (August 28), Amer. Mus. Novitates, No. 86, p. 3—Samate, 250 feet, Prov. Piura, Perú; ♂; Amer. Mus. Nat. Hist.

I can add little to the published accounts of this bird since I have no material not already reported upon. The female specimen from Callacate collected by Stolzmann still remains the only known example from the Marañón drainage where it must be rather rare. I have no doubt that Chapman and Hellmayr are correct in assigning the specimen (which I have not seen) to *piurae.* It probably reached the region of the Río Chota by way of the Porculla Pass or the Huancabamba Pass but apparently has not extended its range very far on the eastern side of the divide. Two of the males from the type locality and one from Palambla are grayer on the back than the type and one other topotype and thus approach true *bernardi.*

Sakesphorus bernardi cajamarcae (Hellmayr)

Hypolophus bernardi cajamarcae Hellmayr, 1917 (September), Verh. Orn. Ges. Bayern, XIII (2), p. 188—Tembladera, n. Perú; ♂; Munich Mus.

Thamnophilus bernardi baroni Hartert and Goodson, 1917 (December), Novit.

Zool., XXIV, No. 3, p. 498—Yonan River, northeast of Trujillo, Perú; ♂; Rothschild Coll., Amer. Mus. Nat. Hist.

Recorded from Guadalupe, Paucal, Trujillo, Río Yonan, Menocucho and the localities given below.

SPECIMENS EXAMINED

S. b. bernardi.—ECUADOR: Guayaquil, 3 ♂, 2 ♀; Chongocito, 2 ♂, 3 ♀; Manta, 3 ♂, 1 ♀; Manaví, 1 ♂, 1 ♀; Daule, 2 ♂; Santa Elena, 1 ♀; Chongon Hills, 1 ♀; Isla Puna, 4 ♂, 3 ♀.

S. b. piurae.—ECUADOR: Lunamá, 1 ♂; Santa Rosa, 2 ♂, 2 ♀. PERÚ: Samate, 4 ♂ (incl. type), 4 ♀; Palambla, 4 ♂, 3 ♀; Paletillas, 2 ♂, 1 ♀; Milagros, 1 ♂, 1 ♀; Sullana, 1 ♂, 1 ♀; Chilaco, 1 ♂, 2 ♀; Tumbes, 1 ♂, 1 ♀.

S. b. cajamarcae.—PERÚ: Viru, 6 ♂, 4 ♀; Trujillo, 1 ♀.